CFS-S SIL / CP 601S

Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Issue date: 12/11/2024 Revision date: 12/11/2024 Supersedes: 15/11/2022 Version: 7.5

SECTION 1: Identification

1.1. GHS Product identifier

Product form	Mixture
Product name	CFS-S SIL / CP 601S
Type of product	Sealants
Product code	BU Fire Protection

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use	Adhesives, sealants

1.4. Supplier's details

Supplier

Hilti Bahrain W.L.L
Warehouse No. 23 & 25, Gate 285, Road 4306
Area 343, Mina Salman
P.O. Box 11401
BH Manama, Bahrain
T +973 17811675
hiltibahrain@hilti.com, https://www.hilti-me.com/

Department issuing data specification sheet

Hilti AG
Feldkircherstraße 100
FL 9494 Schaan
Liechtenstein
T +423 234 2111
product.compliance-fire.protection@hilti.com

1.5. Emergency phone number

Emergency number	Emergency CONTACT (24-Hour-Number): GBK GmbH Global Regulatory Compliance +49 (0)6132-84463

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Not classified

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

No labelling applicable

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification	Product hydrolyses under formation of methanol (CAS no. 67-56-1). Methanol is toxic by inhalation, in contact with skin and if swallowed. Methanol causes damage to organs. Methanol is highly flammable.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
diisobutoxy-bisethylacetoacetatotitanate	CAS-No.: 83877-91-2	< 2	Flammable liquids, Category 3, H226 Acute toxicity (oral) Not classified Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 1, H318 Specific target organ toxicity – Single exposure, Category 3, Narcosis, H336 Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation, H335 Hazardous to the aquatic environment – Acute Hazard Not classified

Full text of H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: Get medical advice/attention if you feel unwell. Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion: Drink plenty of water. Do NOT induce vomiting. Get immediate medical advice/attention. Rinse mouth. Obtain emergency medical attention.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects: Not expected to present a significant hazard under anticipated conditions of normal use.

Potential adverse human health effects and symptoms: Based on available data, the classification criteria are not met.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Methanol (CAS 67-56-1) is readily and rapidly absorbed at all exposure routes and is toxic by all routes. Methanol may cause irritation of the mucosa, as well as nausea, vomiting, headaches, vertigo and visual disorders, including blindness (irreversible damage to the optic nerve), acidosis, spasms, narcosis and coma. There may be a delay in the onset of these effects after exposure. Further toxicology information in section 11 must be observed.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media: Water spray. Carbon dioxide. dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). Sand. Foam. Dry powder.

Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Reactivity in case of fire	Formation of toxic gases is possible during heating or in case of fire. Decomposition products may be a hazard to health.
Hazardous decomposition products in case of fire	Carbon dioxide. Carbon monoxide.

5.3. Special protective actions for fire-fighters

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	Self-contained breathing apparatus. Complete protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	Wear recommended personal protective equipment.
Emergency procedures	Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Do not touch or walk on the spilled product. Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	For further information refer to section 8: "Exposure controls/personal protection". Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and materials for containment and cleaning up

For containment	Absorb spilled material with sand or earth. Collect spillage.
Methods for cleaning up	Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Clean contaminated surfaces with an excess of water. On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	Wear personal protective equipment. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures	Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Keep cool. Store in a dry place. Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 – 25 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Environmental exposure controls: Avoid release to the environment.

Other information: Do not eat, drink or smoke when using this product. Do not eat, drink or smoke during use.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Protective clothing. Safety glasses. Gloves. Avoid all unnecessary exposure.

Hand protection: Protective gloves. ISO 374-1. The permeation time is not the maximum wearing time! Generally speaking, it must be reduced. Contact with either mixtures of substances or different substances may shorten the protective function's effective duration. Wear protective gloves.

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Butyl rubber	6 (> 480 minutes)	>0.3		EN ISO 374
	Nitrile rubber (NBR)	1 (> 10 minutes)	>0.4		EN ISO 374

Eye protection: Chemical goggles or safety glasses

Type	Field of application	Characteristics	Standard
Safety glasses			EN 166, EN 170

Skin and body protection: Wear suitable protective clothing

Respiratory protection: No respiratory protection needed under normal use conditions. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear appropriate mask

Device	Filter type	Condition	Standard
Full face mask	ABEK		EN 136

Personal protective equipment symbol(s)

8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	Liquid
Appearance	Pasty
Colour	Various colours.
Odour	slight.
Odour threshold	Not determined
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flammability	Not available
Lower explosion limit	Not available
Upper explosion limit	Not available
Flash point	Pasty; Not relevant

Auto-ignition temperature	> 400 °C (DIN 51794)
Decomposition temperature	> 300 °C (Lit)
pH	≈ Not applicable
pH solution	Not available
Viscosity, kinematic (calculated value) (40 °C)	Not available
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	Not available
Vapour pressure at 50°C	Not available
Density	1.5 – 1.54 g/cm³ 23°C, 1013hPa (ISO 1183-1 A)
Relative density	Not available
Relative vapour density at 20°C	Not available
Solubility	insoluble in water.
Viscosity, dynamic	> 1000000 mPa·s (Brookfield)
Particle size	Not applicable

9.2. Data relevant with regard to physical hazard classes (supplemental)

Molecular mass	Not determined
Additional information	Explosion limits for released methanol: 5.5 - 44%(V)

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions. Not established.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Not established.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Reacts with: water, basic substances and acids . Reaction causes the formation of: methanol.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Additional information	Based on available data, the classification criteria are not met

CFS-S SIL / CP 601S	
LD50 oral rat	> 2000 mg/kg

diisobutoxy-bisethylacetoacetatotitanate (83877-91-2)	
LD50 oral rat	> 5000 mg/kg bodyweight (Rat, Oral)

Skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met pH: ≈ Not applicable

Serious eye damage/irritation	Not classified (Based on available data, the classification criteria are not met) (Based on available data, the classification criteria are not met) pH: ≈ Not applicable
Respiratory or skin sensitisation	Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified

diisobutoxy-bisethylacetoacetatotitanate (83877-91-2)	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.

STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.
Other information	Hydrolysis product / impurity: Methanol (CAS 67-56-1) is readily and rapidly absorbed at all exposure routes and is toxic by all routes. Methanol may cause irritation of the mucosa, as well as nausea, vomiting, headaches, vertigo and visual disorders, including blindness (irreversible damage to the optic nerve), acidosis, spasms, narcosis and coma. There may be a delay in the onset of these effects after exposure.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short–term (acute)	Not classified
Hazardous to the aquatic environment, long–term (chronic)	Not classified

diisobutoxy-bisethylacetoacetatotitanate (83877-91-2)	
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Reaction product)

12.2. Persistence and degradability

CFS-S SIL / CP 601S	
Persistence and degradability	Polymer component. biologically not degradable. Elimination by adsorption to activated sludge. The product of hydrolysis (methanol) is readily biodegradable.

diisobutoxy-bisethylacetoacetatotitanate (83877-91-2)	
Persistence and degradability	Biodegradability: not applicable.

12.3. Bioaccumulative potential

CFS-S SIL / CP 601S	
Bioaccumulative potential	Polymer component. No bioaccumulation expected.

diisobutoxy-bisethylacetoacetatotitanate (83877-91-2)	
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

CFS-S SIL / CP 601S	
Mobility in soil	No additional information available

diisobutoxy-bisethylacetoacetatotitanate (83877-91-2)	
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

Ozone: Not classified
Other adverse effects: No additional information available
Other information: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.
Ecological information: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

Overland transport
No data available

Transport by sea
No data available

Air transport
No data available

Rail transport
No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

SECTION 16: Other information

SDS Major/Minor	None
Issue date	11/12/2024
Revision date	11/12/2024
Supersedes	11/15/2022
Other information	None.

Full text of H-statements:	
Acute Tox. Not classified (Oral)	Acute toxicity (oral) Not classified
Aquatic Acute Not classified	Hazardous to the aquatic environment – Acute Hazard Not classified
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour
H315	Causes skin irritation
H318	Causes serious eye damage
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

SDS_UN_Hilti

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.